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(54) **METHOD AND APPARATUS FOR QUANTUM CRYPTOGRAPHY**

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ABSTRACT

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Methods and apparatus for use in quantum cryptographic applications are disclosed. An optical signal having a first wavelength is encoded for quantum cryptography at a stage where the optical signal is on at least two signal paths. The wavelength of the encoded optical signal on the at least two signal paths is converted to a second wavelength before the optical signal is encoded for transmission. Encoding for transmission is applied to the optical signal on the second wavelength.

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